



# BASFORD UNION

Rural Sanitary Authority.

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## ANNUAL REPORT

FOR

1893.

BY

JAMES SCOTT TEW, M.D., D.P.H.,

MEDICAL OFFICER OF HEALTH.

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Nottingham :

PRINTED BY S. E. HACKETT LTD., MAYPOLE YARD, LONG ROW.

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TO THE CHAIRMAN AND MEMBERS OF THE BASFORD UNION  
RURAL SANITARY AUTHORITY.

Report.

GENTLEMEN,

The following is my Report for 1893.

THE DISTRICT.

The Basford Union Rural Sanitary District consists of thirty-five separate parishes, having a total area of 73,404 acres, and a population of 53,011 persons.

The following Table shows the parishes, areas, inhabited houses, and population of the Rural Sanitary Sub-district, estimated to the middle of 1893:—

| Sanitary Sub-District. |       | Parishes included.  | Acres. | Inhabited Houses.<br>Census 1891. | Estimated Population<br>1893. |
|------------------------|-------|---|--------|-----------------------------------|-------------------------------|
| No.                    | Name. |   |        |                                   |                               |
| 1—Greasley             | ...   | { Kirkby-in-Ashfield,<br>Selston, Annesley, Felley,<br>Greasley, Eastwood,<br>Codnor Park, Codnor. }  | 24230  | 6713                              | 35220                         |
| 2—Ilkeston             | ...   | ... Shipley, Cossall, Trowell...  | 4719   | 392                               | 2080                          |
| 3—Basford              | ...   | ... Wollaton ..   | 2340   | 125                               | 641                           |
| 4—Bulwell              |       | { Bilborough, Strelley,<br>Nuthall, Bestwood Park. }  | 7249   | 581                               | 3113                          |
| 5—Arnold               |       | { Lynby, Newstead,<br>Papplewick, Calverton,<br>Woodboro', Lambley. }                                 | 14168  | 955                               | 4397                          |
| 6—Carlton              |       | { Burton Joyce, Gedling,<br>Stoko Bardolph, Colwick,<br>Gamston. }                                    | 6078   | 415                               | 2331                          |
| 7—Wilford              |       | { Ruddington, Bradmore,<br>Bunny, Gotham,<br>Thrumpton, Barton,<br>Clifton-cum-Glapton,<br>Wilford. } | 14620  | 1203                              | 5229                          |
|                        |       | Total...  | 73,404 | 10,384                            | 53,011                        |

The general facts which are brought into prominence by a consideration of the Vital Statistics for the year 1893, are of a reassuring character; for, despite the large amount of Infectious Disease which prevailed both in this District and in the localities closely surrounding it, none of the figures or rates are indicative of very serious conditions. There are some instances, however (which I have pointed out under the different headings of this Report), where a much higher standard should be aimed at.

The birth-rate was 37·9; the general death rate 15·7; and the zymotic death-rate 2·02 per 1000 persons estimated to be living at the middle of the year.

The Infant death-rate (*i.e.* of children under 1 year), was 149·32 per 1000 total births.

Two limited outbreaks of Small-pox occurred during the year, but isolation, accompanied by other active measures which were adopted, proved successful in preventing a serious epidemic.

Cases of Diarrhœa and Enteric Fever—diseases which so regularly appear in the early autumn following a dry and hot summer—were very numerous; more cases of the latter disease having been reported than during any year on record.

Scarlet Fever was widely scattered throughout the District during the whole year, but the mortality was extremely small.

Influenza was by no means absent; 28 deaths having been ascribed as directly or indirectly due to this complaint.

Considerable advance has been made in the preparatory arrangements for carrying out the Eastwood and Greasley, and the Codnor and Loscoe Sewage Schemes, and also the Selston Water Scheme.

The preparations for an Isolation Hospital have advanced so far, that plans have been prepared and adopted, and a loan has been applied for to carry out the work.

Mr. Rossell, Inspector of Canal Boats for the District, was at the commencement of the year appointed also Inspector of Dairies, Cowsheds, and Milk-shops, to put into effect the Order of 1885, for the registration of cow-keepers, dairymen, and purveyors of milk, and the inspection of premises where cows are kept or the sale of milk is carried on.

On the resignation of Mr. Parker, Inspector of Nuisances and Surveyor to the Authority, in October last, it was decided, considering the increasing sanitary requirements, to divide the District into two parts and to appoint separate Inspectors for each division to act under the direction of the Medical Officer of Health; one to reside in Nottingham, and one at Kimberley—these being deemed the most convenient points to work from.

The following division of the parishes in the Rural Sanitary District was accordingly made :—

#### No. 1. DISTRICT.

|                | Area. | Population. |               | Area. | Population. |
|----------------|-------|-------------|---------------|-------|-------------|
| Codnor ...     | 1879  | ... 3848    | Nuthall ...   | 1900  | ... 1865    |
| Codnor Park... | 1342  | ... 1077    | Selston ...   | 2330  | ... 5267    |
| Cossall ...    | 720   | ... 829     | Shipleigh ... | 2134  | ... 689     |
| Eastwood ...   | 940   | ... 4363    | Trowell ...   | 1570  | ... 414     |
| Greasley ...   | 8010  | .. 11143    |               | <hr/> | <hr/>       |
|                |       |             |               | 20825 | 29495       |

#### No. 2. DISTRICT.

|               | Area. | Population. |                  | Area. | Population. |
|---------------|-------|-------------|------------------|-------|-------------|
| Annesley ...  | 3360  | ... 1374    | Kirkby ...       | 5590  | ... 6533    |
| Barton ...    | 1620  | ... 246     | Lambley ...      | 2170  | ... 729     |
| Bestwood Park | 3635  | ... 736     | Lynby ...        | 1190  | ... 310     |
| Bilboro' ...  | 1090  | ... 210     | Newstead } ...   | 5250  | 1036        |
| Bradmore ...  | 1560  | ... 244     | Papplewick } ... |       | 384         |
| Bunny ...     | 2000  | ... 239     | Ruddington ...   | 2190  | ... 2370    |
| Burton Joyce  | 970   | ... 877     | Stoke ...        | 1060  | ... 188     |
| Calverton ... | 3320  | ... 1199    | Strelley ...     | 1050  | ... 204     |
| Clifton ...   | 1980  | ... 391     | Thrumpton ...    | 1080  | ... 141     |
| Colwick ...   | 1010  | ... 480     | Wilford ...      | 1367  | ... 519     |
| Felley ...    | 333   | ... 44      | Wollaton ...     | 2340  | ... 654     |
| Gamston ...   | 530   | ... 94      | Woodboro' ...    | 1940  | ... 768     |
| Gedling ...   | 4490  | ... 526     |                  | <hr/> | <hr/>       |
| Gotham ...    | 2740  | ... 1134    |                  | 53865 | 21630       |

On November 21st, Mr. Wm. Darley and Mr. Thos. Parr were respectively appointed to No. 1 and No. 2 Districts, the former to reside at Kimberley, and the latter in Nottingham, and their duties commenced on December 11. Offices have been provided at Basford (Public Offices, Nottingham Road), where the Medical Officer of Health



and Inspectors attend each Friday morning from 10.0 to 1.0, to receive complaints, arrange visits of inspection, consult as to the routine work, &c.

These arrangements are so far, perfectly satisfactory.

Tables of Statistics are placed at the end, viz:—A and B required by the Local Government Board, the figures in them are now separated by request for the information of the County Councils of Notts. and Derbyshire, but are not separately printed in this report; the tables 1-5 recommended by the Society of Medical Officers of Health; and two tables giving the meteorological conditions at different points in and around the District.

A table is given at page 40 in which all infectious diseases notified during the year, are classified as to parishes or distant localities in which they occurred, and as to the month of occurrence. A chart after page 28 shows graphically the proportion of deaths to cases from the notifiable diseases throughout the year.

Statistics not belonging to this District, and quoted for comparison, are mostly derived from the "Quarterly Returns" of the Registrar General, which are subject to revision when the causes of death and other details are finally classified and tabulated for publication in his Annual Report. There may, therefore, be a slight difference between some of the rates here given and those obtained at a later period of the year, but there will not, I think, be sufficient to cause any serious error, or to affect any general conclusion derived therefrom.

**Births.**—There were 2,009 births registered during the year—the highest number ever recorded. Previous to this, 1891, with only 21 less, was the maximum year. Of these, 1,011 were males and 998 females. Among the males 50, and among the females 44 were illegitimate.

Their registration was distributed over the four quarters of the year as follows:—

|             |     | MALES       |     |               |     | FEMALES.    |     |               |  |
|-------------|-----|-------------|-----|---------------|-----|-------------|-----|---------------|--|
|             |     | Legitimate. |     | Illegitimate. |     | Legitimate. |     | Illegitimate. |  |
| 1st Quarter | ... | 200         | ... | 6             | ... | 264         | ... | 8             |  |
| 2nd         | „   | 257         | ... | 11            | ... | 245         | ... | 6             |  |
| 3rd         | „   | 279         | ... | 9             | ... | 248         | ... | 9             |  |
| 4th         | „   | 225         | ... | 24            | ... | 197         | ... | 21            |  |
| Total       | ... | 961         |     | 50            |     | 954         |     | 44            |  |



The births during the 5 years immediately preceding were:—

| Year. |     |     | Number of births. |      |
|-------|-----|-----|-------------------|------|
| 1892  | ... | ... | ...               | 1914 |
| 1891  | ... | ... | ...               | 1988 |
| 1890  | ... | ... | ...               | 1846 |
| 1889  | ... | ... | ...               | 1821 |
| 1888  | ... | ... | ...               | 1757 |

The natural increase, *i.e.* the excess of Births over deaths, was 1173; and the birth-rate equal to 37·9 per 1,000. This rate is 1·4 above the annual average in the district for the past 10 years; and 7·1 above the rate for England and Wales during 1893, which was 30·8.

**Deaths.**—These have amounted to 836, *i.e.* 118 less than in 1892, and 6 below the average for the last 10 years. It will be seen, by reference to Table III., that the diminution in the number of deaths from 1892 occurs among (1) Miasmatic diseases—principally whooping-cough and measles, and (2) local diseases—especially circulatory and respiratory.

The numbers occurring in each quarter of the year and in the 5 preceding years are as follows:—

|             | 1888    | 1889    | 1890    | 1891    | 1892    | 1893    |
|-------------|---------|---------|---------|---------|---------|---------|
| 1st Quarter | ... 228 | ... 220 | ... 248 | ... 230 | ... 280 | ... 208 |
| 2nd „       | ... 170 | ... 205 | ... 220 | ... 251 | ... 218 | ... 199 |
| 3rd „       | ... 162 | ... 207 | ... 231 | ... 168 | ... 199 | ... 228 |
| 4th „       | ... 215 | ... 183 | ... 236 | ... 220 | ... 257 | ... 201 |
|             | —       | —       | —       | —       | —       | —       |
|             | 775     | 815     | 935     | 869     | 954     | 836     |

The above number corresponds to a general death-rate of 15·77 per 1,000, or 2·51 below the rate in 1892; ·92 below the average for the past decade; and 3·43 below the rate for England and Wales, during the corresponding period.

The following rates for 1892 are for comparison:—

|   |     |     |     |      |
|---|-----|-----|-----|------|
| Death-rate for England and Wales                | ... | ... | ... | 19·2 |
| „ „ 33 Great Towns                              | ... | ..  | ... | 21·5 |
| „ „ 67 other Town Districts                     | ... | ... | ... | 19·1 |
| „ „ England and Wales <i>less</i> the 100 Towns | ... | ... | ... | 17·5 |
| „ „ London                                      | ... | ... | ... | 21·3 |
| „ „ Nottingham                                  | ... | ... | ... | 18·4 |

This District is comparable with the fourth on the above list, viz:—England and Wales *less* the 100 Towns, and has an advantage of 1·73 in death-rate, which is highly satisfactory.

The Infant Mortality is slightly less, and the mortality in the age-period 1-5 years is considerably lower than that of the previous year as shown below:—

|      |     | Deaths<br>under 1 year. |     | Deaths<br>under 5 years. |
|------|-----|-------------------------|-----|--------------------------|
| 1889 | ... | 258                     | ... | 369                      |
| 1890 | ... | 313                     | ... | 437                      |
| 1891 | ... | 285                     | ... | 366                      |
| 1892 | ... | 326                     | ... | 485                      |
| 1893 | ... | 300                     | ... | 396                      |

**The Infant Death-rate** was 149·32 per 1000 registered births; 358·85 per 1000 total deaths; and 5·6 per 1000 living.

In England and Wales the proportion was 159 per 1000 registered births in 1893, and the near proportion in the 10 years 1883-1892 was 144.

**Phthisis** (Consumption) caused 39 deaths (41 resulted from this cause in 1892), giving a rate of·73 per 1000 living.

**Deaths in Public Institutions.**—Deaths have taken place in the following Public Institutions situated outside the area of the Rural Sanitary Authority, among persons usually resident therein, viz:—in Basford Workhouse 11 deaths, in the Nottingham General Hospital 8, and in the County Asylum 5. Particulars of these were kindly supplied by Mr. Turnbull, Mr. Keely, Dr. Aplin, and Mr. G. W. Caunt (Derbyshire Royal Infirmary, where however, no deaths had occurred from this District).

**Cancer** does not appear to be materially on the increase in this District as the following figures for the last 7 years show:—

|      |     |     |           |
|------|-----|-----|-----------|
| 1886 | ... | ... | 25 deaths |
| 1887 | ... | ... | 32 „      |
| 1888 | ... | ... | 27 „      |
| 1889 | ... | ... | 28 „      |
| 1890 | ... | ... | 35 „      |
| 1891 | ... | ... | 19 „      |
| 1892 | ... | ... | 24 „      |
| 1893 | ... | ... | 29 „      |

**Zymotic Deaths.**—One hundred and seven deaths have been caused during the past year by one or other of the seven principal zymotic diseases, viz :—(1) Small-pox, (2) Scarlet Fever, (3) Diphtheria, (4) Fevers (including Typhus, Enteric or Typhoid, and other continued Fevers), (5) Measles, (6) Whooping-Cough, (7) Diarrhœa. This is 31 less than in 1892, and 1·4 below the average for the past 10 years.

The Zymotic death-rate, derived from the above mentioned diseases was, therefore, 2·02 per 1000 living, or ·62 below the rate of 1892. The rate was during 1893, in—

|   |     |     |     |      |
|---|-----|-----|-----|------|
| England and Wales                           | ... | ... | ... | 2·47 |
| 33 Great Towns                              | ... | ... | ... | 3·18 |
| 67 other Town Districts                     | ... | ... | ... | 2·84 |
| England and Wales <i>less</i> the 100 Towns |     |     |     | 1·89 |
| London (registration)                       | ... | ... | ... | 3·08 |
| Nottingham                                  | ... | ... | ... | 2·62 |

Further particulars of zymotic mortality are given in the following table :—

| DISEASES.                       | Total Deaths from Zymotic Diseases, during |       |       |       |       | Annual Average of 10 years, 1883-1892. | Proportion of Deaths to 1000 Deaths in 10 Years. | Proportion of Deaths to 1,000 Deaths in 1893. |
|---------------------------------|--|-------|-------|-------|-------|--|--|---|
|                                 | 1889.                                      | 1890. | 1891. | 1892. | 1893. |  |  |   |
| Small-Pox ... ..                | ...  | ...   | ...   | ...   | 2     | ·0                                     | ·0   | 2·39  |
| Measles ... ..                  | 2  | 51    | 6     | 39    | 5     | 20·0                                   | 23·84  | 5·98  |
| Scarlet Fever ... ..            | 10   | 6     | 19    | 17    | 7     | 16·2                                   | 19·22  | 8·37  |
| Diphtheria ... ..               | 1  | 1     | 3     | 5     | 8     | 6·7                                    | 7·94   | 9·56  |
| Whooping Cough ...              | 21   | 14    | 13    | 35    | 21    | 18·9                                   | 22·42  | 25·12   |
| Typhus Fever... ..              | ...  | ...   | ...   | ...   | ...   | ·1                                     | 0·12   | ...   |
| Typhoid or Enteric Fever ... .. | 26   | 19    | 13    | 15    | 17    | 14·1                                   | 16·73  | 20·33   |
| Simple continued Fever ... ..   | ...  | 2     | ...   | ...   | 1     | 0·6                                    | 0·71   | 1·19  |
| Diarrhœa ... ..                 | 42   | 29    | 15    | 27    | 46    | 31·8                                   | 38·91  | 55·02   |
| TOTALS ... ..                   | 102  | 122   | 69    | 138   | 107   | 108·4                                  | 129·89   | 127·96  |

**Inquests.**—Coroners' Inquests were held in 55 cases—41 Males and 14 females—*i.e.* in 6·5 per cent. of the total deaths, or ·7 above the percentage in England and Wales, during the same period.

The distribution is shown in a table below.

The ages were—

|             |          |           |            |            |                  |
|-------------|----------|-----------|------------|------------|------------------|
| Under 1 yr. | 1-5 yrs. | 5-15 yrs. | 15-25 yrs. | 25-60 yrs. | 65 yrs. upwards. |
| 2           | 7        | 3         | 10         | 25         | 8                |

*Table showing the number and distribution of Inquests held, and the uncertified deaths recorded during 1893.*

| REGISTRATION<br>SUB-DISTRICT.    | INQUESTS<br>held in the District during the year 1893. |                 |                 |                 |        | DEATHS<br>recorded as "uncertified" during the year 1893. |                 |                 |                 |        |
|----------------------------------|--|-----------------|-----------------|-----------------|--------|---|-----------------|-----------------|-----------------|--------|
|                                  | 1st<br>Quarter.  | 2nd<br>Quarter. | 3rd<br>Quarter. | 4th<br>Quarter. | Total. | 1st<br>Quarter.   | 2nd<br>Quarter. | 3rd<br>Quarter. | 4th<br>Quarter. | Total. |
| Greasley ...                     | 7  | 10              | 5               | 10              | 32     | 7   | 1               | 7               | 3               | 18     |
| Ilkeston ...                     | 0  | 0               | 2               | 0               | 2      | 1   | 0               | 0               | 0               | 1      |
| Basford ...                      | 1  | 1               | 0               | 2               | 4      | 0   | 0               | 0               | 0               | 0      |
| Bulwell ...                      | 1  | 1               | 0               | 2               | 4      | 1   | 0               | 0               | 2               | 3      |
| Arnold ...                       | 1  | 1               | 0               | 0               | 2      | 0   | 0               | 0               | 2               | 2      |
| Carlton ...                      | 0  | 0               | 1               | 1               | 2      | 0   | 0               | 0               | 0               | 0      |
| Wilford ...                      | 2  | 3               | 4               | 0               | 9      | 1   | 0               | 0               | 3               | 4      |
| Totals ...                       | 12   | 16              | 12              | 15              | 55     | 10  | 1               | 7               | 10              | 28     |
| Rate per 100...<br>total deaths. | 5·7  | 8·0             | 5·2             | 7·4             | 6·5    | 4·8   | 0·5             | 3·0             | 4·9             | 3·3    |
| Percentage<br>England & Wales.   | 5·9  | 5·9             | 5·5             | 5·7             | 5·8    | 2·8   | 2·4             | 2·3             | 2·6             | 2·5    |

In previous years the numbers and rates have been as follows :—

| Year. | No. of Inquests. | Percentage. |
|-------|------------------|-------------|
| 1892  | ... 39           | ... 4·5     |
| 1891  | ... 45           | ... 5·1     |
| 1890  | ... 47           | ... 5·0     |
| 1889  | ... 51           | ... 6·2     |
| 1888  | ... 47           | ... 6·0     |
| 1887  | ... 49           | ... 6·4     |

**Uncertified Deaths.**—Under this extremely unsatisfactory heading 28 deaths are included—15 males and 13 females—giving a rate of 3·3 per cent. of total deaths, *i.e.*, ·8 higher than the rate for England and Wales.

In addition to the table on page 10 which gives the quarters in which they occurred, and the percentages, the following is a further classification of the supposed causes, localities, and ages.

| Uncertified Deaths. |     |   |                |     |    |
|---------------------|-----|---|----------------|-----|----|
| Causes.             |     |   | Ages.          |     |    |
| Convulsions         | ... | 8 | ... 0 — 1 yrs. | ... | 17 |
| Premature Birth     | ... | 7 | ... 1 — 5 „    | ... | 2  |
| Debility from Birth | ... | 2 | ... 5 — 15 „   | ... | 1  |
| Heart Disease       | ... | 2 | ... 25 — 65 „  | ... | 4  |
| Bronchitis          | ... | 2 | ... 65 upwards | ... | 4  |
| Influenza           | ... | 2 | ...            | ... | —  |
| Diarrhœa            | ... | 2 | ...            | ... | 28 |
| “Natural Causes”    | ... | 2 | ...            | ... | —  |
| Jaundice            | ... | 1 | ...            | ... | —  |
| <hr/>               |     |   |                |     |    |
| 28                  |     |   |                |     |    |

| Localities.   |     |     |     | Place.      |       |
|---------------|-----|-----|-----|-------------|-------|
| Sub-District. |     |     |     |             |       |
| Greasley      | ... | ... | ... | Eastwood    | ... 5 |
| „             | ... | ... | ... | Kimberley   | ... 4 |
| „             | ... | ... | ... | Westwood    | ... 2 |
| „             | ... | ... | ... | Brinsley    | ... 1 |
| „             | ... | ... | ... | Codnor      | ... 1 |
| „             | ... | ... | ... | Codnor Park | ... 1 |
| „             | ... | ... | ... | Kirkby      | ... 1 |
| „             | ... | ... | ... | Newthorpe   | ... 1 |
| „             | ... | ... | ... | Selston     | ... 1 |
| „             | ... | ... | ... | Underwood   | ... 1 |



| Sub-District. |     |     | Localities. | Place.        |     |   |
|---------------|-----|-----|-------------|---------------|-----|---|
| Ilkeston      | ... | ... | ...         | Cossall       | ... | 1 |
| Bulwell       | ... | ... | ...         | Awsworth      | ... | 2 |
| "             | ... | ... | ...         | Bestwood Park |     | 1 |
| Arnold        | ... | ... | ...         | Lambley       | ... | 1 |
| "             | ... | ... | ...         | Woodborough   |     | 1 |
| Wilford       | ... | ... | ...         | Barton        | ... | 1 |
| "             | ... | ... | ...         | Ruddington    | ... | 1 |
| "             | ... | ... | ...         | Thrumpton     | ... | 1 |
| "             | ... | ... | ...         | Wilford       | ... | 1 |

In my report for 1891, I fully explained the reasons why the registration of uncertified deaths is unsatisfactory.

### A.—Notifiable Zymotic Diseases.

The Infectious Disease Notification Act (1889), which was adopted by this Authority and came into force on January 1st, 1890, has continued to exert a beneficial effect on the district by bringing to light many cases of dangerous infectious diseases, which would otherwise not have come under sanitary control.

The following Tables show the monthly distribution and deaths:—

*Cases of Notifiable Diseases occurring in each month of 1893.*

| Month.      | Scarlet<br>Fever. | Diph't'ria<br>& Memb.<br>Croup. | Enteric<br>Fever. | Erysipe-<br>las. | Contin-<br>ued<br>Fever. | Puerpe-<br>ral<br>Fever. | Small-<br>pox | Totals. |
|-------------|-------------------|---------------------------------|-------------------|------------------|--------------------------|--------------------------|---------------|---------|
| January -   | 15                | 1                               | 10                | 3                | ...                      | 2                        | ...           | 31      |
| February -  | 12                | 5                               | 2                 | 2                | ...                      | ...                      | ...           | 21      |
| March -     | 11                | 5                               | 7                 | 5                | ...                      | 1                        | 2             | 31      |
| April -     | 6                 | 0                               | 2                 | 2                | ...                      | ...                      | 2             | 12      |
| May -       | 8                 | 4                               | 14                | 1                | ...                      | ...                      | 1             | 28      |
| June -      | 11                | 9                               | 15                | 3                | 3                        | ...                      | 1             | 42      |
| July -      | 12                | 4                               | 14                | 11               | ...                      | ...                      | ...           | 41      |
| August -    | 13                | 4                               | 29                | 6                | ...                      | 1                        | ...           | 53      |
| September - | 23                | 11                              | 39                | 9                | ...                      | ...                      | ...           | 82      |
| October -   | 25                | 10                              | 34                | 7                | ...                      | 1                        | ...           | 77      |
| November -  | 13                | 5                               | 27                | 4                | ...                      | ...                      | ...           | 49      |
| December -  | 12                | 0                               | 17                | 1                | ...                      | ...                      | 4             | 34      |
| Totals -    | 161               | 58                              | 210               | 54               | 3                        | 5                        | 10            | 501     |



*Deaths from Notifiable cases in each month of 1892.*

| Month.      | Scarlet<br>Fever. | Diph'teria<br>& Memb.<br>Croup. | Enteric<br>Fever. | Erysipe-<br>las. | Contin-<br>ued<br>Fever. | Puerpe-<br>ral<br>Fever. | Small-<br>pox. | Totals. |
|-------------|-------------------|---------------------------------|-------------------|------------------|--------------------------|--------------------------|----------------|---------|
| January -   | ...               | 1                               | ...               | 1                | ...                      | ...                      | 1              | 3       |
| February -  | ...               | 1                               | ...               | 1                | ...                      | ...                      | ...            | 2       |
| March -     | ...               | 1                               | 2                 | ...              | ...                      | 1                        | ...            | 4       |
| April -     | ...               | ...                             | 1                 | ...              | ...                      | ...                      | ...            | 1       |
| May -       | ..                | 1                               | ...               | ...              | ...                      | ...                      | ...            | 1       |
| June -      | ...               | ...                             | 1                 | ...              | ...                      | ...                      | ...            | 1       |
| July -      | ...               | 1                               | 2                 | ...              | 1                        | ...                      | ...            | 4       |
| August -    | 2                 | ..                              | 5                 | ...              | ...                      | ...                      | ...            | 7       |
| September - | 1                 | 1                               | 3                 | 1                | ...                      | 1                        | ...            | 7       |
| October -   | 2                 | 2                               | ...               | ...              | ...                      | 1                        | ...            | 5       |
| November -  | ...               | ...                             | 2                 | ...              | ...                      | 1                        | ...            | 3       |
| December -  | 2                 | 1                               | 1                 | ...              | ..                       | 1                        | 1              | 6       |
| Totals -    | 7                 | 9                               | 17                | 3                | 1                        | 5                        | 2              | 44      |

The diseases notifiable to the Medical Officer of Health are those mentioned in Section 6 of this Act, *viz.*, small-pox, cholera, diphtheria, membranous croup, erysipelas, the disease known as scarlatina, or scarlet fever, and the fevers known by any of the following names: typhus, typhoid, enteric, relapsing, continued or puerperal.

From the above list the following diseases have been notified during the past year: scarlet fever, diphtheria, enteric fever, continued fever, puerperal fever, erysipelas, and small-pox. 501 cases were reported, the largest number yet recorded in this district.

The notifications are almost without exception sent by the medical attendant to whom a fee of 2/6 is paid for each case occurring in his private practice, or 1/- when occurring in his practice as medical officer of any public body or institution. About 5 % of cases notified in this district are payable on the lower scale.

Such fees have during the past four years, averaged £47 16s. 4d. per annum; or an annual average cost of 18s. 1½d. per 1000 of population.

A comparison between the cases notified and deaths in 1890, 1891, 1892, and 1893 is given below :—

|   |      | Scarlet<br>Fever. | Diphtheria | Enteric<br>Fever. | Erysipelas. | Continued<br>Fever. | Peurperal<br>Fever. | Small-pox. | Totals. |
|---|------|-------------------|------------|-------------------|-------------|---------------------|---------------------|------------|---------|
| Notified Cases in                       | 1890 | 202               | 17         | 102               | 34          | ...                 | 5                   | ...        | 360     |
| " "                                     | 1891 | 252               | 12         | 91                | 61          | 1                   | ...                 | ...        | 417     |
| " "                                     | 1892 | 138               | 14         | 81                | 57          | 1                   | 2                   | 4          | 297     |
| " "                                     | 1893 | 161               | 58         | 210               | 54          | 3                   | 5                   | 10         | 501     |
| Deaths from Notifi-<br>able Diseases in | 1890 | 6                 | 1          | 19                | 3           | ...                 | 1                   | ...        | 30      |
| " "                                     | 1891 | 19                | 3          | 13                | 3           | ...                 | 2                   | ...        | 40      |
| " "                                     | 1892 | 17                | 5          | 15                | 1           | ...                 | 2                   | ...        | 40      |
| " "                                     | 1893 | 7                 | 9          | 17                | 3           | 1                   | 5                   | 2          | 44      |

**Small-pox.**—Ten cases occurred during the year, and two deaths were recorded—one at Kimberley in January, (which commenced in November, 1892), and one at Woodborough in December.

These ten cases were probably derived from five separate foci of infection ; all those notified in 1893 recovered, with the exception of a little girl who had not been vaccinated.

The following is a detailed account :—

CASE I. was that of a miner, a young married man aged 19, who lived with his wife's parents in the most thickly populated part of East Kirkby, and who commenced his illness on March 20th. He was seen on that day by Dr. Mackenzie, who promptly notified the case to me.

This was reported to you at your meeting on March 28th, and I was then authorised to make the best arrangements possible for the isolation, maintenance, nursing, and medical attendance of the case.

I accordingly applied at once to Mr. Jno. Whyatt, of Basford, to be allowed to rent an old house which was then vacant in an isolated position close to the site for our proposed new Infectious Hospital. He kindly consented, and I forthwith had it cleaned, procured the necessary bedding, furniture, &c., and made all arrangements to receive the patient. A nurse was engaged and the man was removed from Kirkby on March 31st.

There were six other inmates of the house whence this man came ; these were vaccinated before his removal, and kept at home until time had proved them not likely to become attacked. The house was disinfected, cleaned, and lime-washed, and some bedding which was likely to be infected was burnt.

The man had a moderately mild attack (he had 3 good vaccination marks), and returned home well on April 25th.

A brother of this patient, was, some two or three weeks previously laid up with a slight illness accompanied by a rash, which he was thought to have contracted in Chesterfield, and our patient visited his brother while ill; the disease, therefore, was most probably originally imported. from Chesterfield.

CASE II. was that of Mrs. W., aged 65, also living in the centre of East Kirkby with her husband and step-son. She had no visible vaccination marks, but thought she had been vaccinated as an infant. The husband worked at the same pit as Case I., otherwise no cause could be traced.

She commenced her illness on March 23rd, the rash appeared on the 24th, and she was removed to Basford on the 25th. A sharp attack ensued, but she made a good recovery and went home on ~~April~~ 5th <sup>May</sup>. Her husband was vaccinated at the outset, but the step-son would not consent to the operation.

CASE III.—This was the step-son of the preceding who had refused to be re-vaccinated. His rash appeared on April 9th, but he evaded medical advice until the 12th when he got worse and sent for Dr. Mackenzie, who wired to me, and the case was removed to Basford the same day. This man had an extremely severe attack, but recovered and went home on May 31st.

CASE IV. was that of a railway navvy, aged 32, married, and who was employed on the Dore and Totley line, at Padley Wood, some 8 or 9 miles from Chesterfield, where there was a great deal of Small-pox at the time. He usually came home to East Kirkby at each week end, but not feeling well returned on Thursday April 20th; the rash developed on the 22nd, and on that day he was removed to the isolation house at Basford. He had only two faintly visible vaccination marks, and had the disease in a malignant form, being unfit to return home until June 26th.

There were four other inmates of the house in which he lived, viz :— a wife, two children, and two lodgers—man and wife. Strict precautions were taken (including vaccination) as in Case I., and no further cases followed.

The house at Basford was thus used for isolation during three months, and is still retained until we have some better accommodation, but as the other cases did not occur in such populous places, and were so situated that isolation could be carried out effectually, they were not removed.

The preceding four cases were fed, nursed, and entirely provided for at your expense, and were medically attended by myself.

Case V. occurred at Kimberley on May 22nd, the patient being a man aged 35, who was able to be well isolated and who made a rapid recovery. The infection could not definitely be traced and no one else took the disease.

Case VI. was that of a baby aged 4 months, at Awsworth. The history was not very clear, but the mother, who was only making a stay in the village, had been (on account of small-pox) an inmate of the Spittle Boro' Hospital. It was a very slight case which soon recovered and left the District.

Case VII. arose at a farm-house at Woodborough, and the infection could not be traced definitely. The man (aged 27), his wife, (aged also 27), their little daughter (aged 7), and a baby (aged 8 months), were all attacked—the first two and the last simultaneously and very mildly, but the little girl had the disease severely and eventually died; she had not been vaccinated, but all the others had been. This family were well isolated and no other cases followed.

**Scarlet Fever.**—One hundred and sixty-one cases occurred during the year (as compared with 138 in 1892), with 7 deaths, *i.e.*, a case-mortality of 5·07 per cent, and a Scarlet-fever death-rate of ·13 per 1000 of the population, a rate well below the unavoidable or permissible death-rate (about ·4 from this disease), and ·1 below the rate for the country generally.

The fatal age periods were :—

| 1-5 years | 5-15 years | 15-25 years |
|-----------|------------|-------------|
| <hr/>     | <hr/>      | <hr/>       |
| 3         | 2          | 2           |

Three deaths occurred at Kimberley, 2 at Gotham, 1 at Newstead, and 1 at Hill Top (Greasley).

**Diphtheria** (including one case of membranous croup) has been far more prevalent than usual in the District during the year; there have been 58 cases, with 8 deaths, distributed as follows:—

| Month. |     | Place.             |     | No. of Cases. |
|--------|-----|--------------------|-----|---------------|
| Jan.   | ... | Kimberley          | ... | 1             |
| Feb.   | ... | Kirkby             | ... | 3             |
| "      | ... | Eastwood           | ... | 1             |
| "      | ... | Codnor             | ... | 1             |
| Mar.   | ... | Codnor             | ... | 3             |
| "      | ... | Papplewick         | ... | 3             |
| April  | ... | ...                | ... | 0             |
| May    | ... | Codnor             | ... | 1             |
| "      | ... | Kirkby             | ... | 1             |
| "      | ... | Annesley Woodhouse | ... | 1             |
| "      | ... | Newthorpe          | ... | 1             |
| June   | ... | Loscoe             | ... | 4             |
| "      | ... | Codnor             | ... | 2             |
| "      | ... | Nuthall            | ... | 3             |
| July   | ... | Loscoe             | ... | 3             |
| "      | ... | Codnor             | ... | 1             |
| Aug    | ... | Loscoe             | ... | 2             |
| "      | ... | Codnor Park        | ... | 1             |
| "      | ... | Burton Joyce       | ... | 1             |
| Sept.  | ... | Codnor             | ... | 10            |
| "      | ... | Eastwood           | ... | 1             |
| Oct.   | ... | Codnor             | ... | 6             |
| "      | ... | Burton Joyce       | ... | 1             |
| "      | ... | Kirkby             | ... | 1             |
| "      | ... | Loscoe             | ... | 1             |
| Nov.   | ... | Codnor             | ... | 4             |
| "      | ... | Annesley           | ... | 1             |
| Dec.   | ... | ...                | ... | 0             |

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The death-rate from Diphtheria was  $\cdot 15$  per 1000, and the case-mortality  $14\cdot 03$  %.



It will be seen that no less than 28 cases were notified from Codnor, and 10 from the adjoining village of Loscoe—the disease in those places, however, appeared to be of an extremely mild type, as out of the 38 cases reported no deaths occurred at Codnor, and only one at Loscoe.

The deaths ascribed to this disease took place at Eastwood (2), Kirkby (2), Papplewick (1), Hill Top (1), Kimberley (1).

**Enteric Fever.**—210 cases occurred with 17 deaths, 12 males and 5 females, a case-mortality of 8·1 % (excessively low), and an Enteric Fever death-rate of ·32 per 1000, the rate during 1893 having been in England and Wales ·23.

The mean age at death was 26·6 years—the oldest fatal case being at 64, and the youngest at 4 years of age.

The excessive rise in reported cases is well seen in September on the chart following page 28.

Diarrhoea was also at its height at that time, and, the large number of cases of both diseases were probably due in a great measure to the hot, dry season, and also in many cases which I personally noted, to the inferior quality of food (including fish, vegetables, and fruit), consumed by a large number of the mining population—and specially affecting the juvenile portion—during the coal strike.

**Erysipelas.**—Among 54 cases reported, only 3 deaths were registered.

**Puerperal Fever.**—The fatalities directly ascribed to puerperal fever are small in number.

The adoption by the Registrar General of a system of inquiry for further details in female cases returned as pyæmia, septicæmia, peritonitis, &c., has been effective in eliciting the fact that these diseases were often due to the puerperal state, and, therefore to be classed as puerperal fever.

## **B.—Non-notifiable Zymotic Diseases.**

**Measles.**—1893 was decidedly unfavourable to this disease proving fatal. There was a considerable number of cases, but the reckless exposure, to which the majority of parents subject their children



during an attack of measles, was not productive of pneumonia and bronchitis, as is usually the case during a less warm season. Five deaths only occurred—2 at Kimberley, and 3 at Selston; all were under 2 years of age.

**Whooping Cough** caused 21 deaths compared with 35 in 1892. Of these 9 were under 1 year, and 20 under 5 years of age. 11 took place at Kirkby, 4 at Annesley, 2 at Eastwood, 2 at Newthorpe, 1 at Hill Top, and 1 at Bestwood.

The death-rate was  $\cdot 39$  per 1000.

**Diarrhœa** prevailed to a great extent during the summer and early autumn, and was fatal in 46 cases—a number which has not been exceeded since 1880, when 64 deaths were caused by this disease. In July, August, and September, the deaths were respectively 13, 12, and 16, and this period should specially be noted, as it was in those three months that such a large rise in the number of cases of enteric fever took place. A maximum of deaths during the year from diarrhœa, and a maximum of cases of enteric fever were recorded in September.

The death-rate was  $\cdot 86$ , that of England and Wales  $\cdot 96$ .

**Influenza.**—28 deaths were either directly or indirectly due to influenza. Eleven of these occurred in December. The principal noticeable features were that the majority were in persons past middle life, and nearly all associated with pneumonia or bronchitis; 16 deaths resulted from influenza in 1892, and 39 in 1891.

#### WORK DONE—MEASURES ADOPTED OR ADVISED, ETC.

**Water.**—The principal work done in the way of water provision on a large scale has been the advancement of the scheme for Selston.

Mr. Geo. Hodson, the engineer appointed to propound a scheme to provide the whole of the parish of Selston with water, presented his report to the Committee on December 22nd.

This report was adopted, a few further extensions in the parish having been suggested and agreed to.

After exhaustively discussing the different possible sources, Mr. Hodson finally advises that the water from the Annesley tunnel spring should be taken, and he furnished in his report the following interesting details of the scheme :—

It is proposed to purchase one acre of ground between the Midland Railway and the M. S. & L. Railway and to sink a well into the water-bearing strata below the level of the Railway Spring, and drive such headings as may be necessary to obtain the full quantity of water required for the district and to pump it from thence to a Reservoir of about 150,000 gallons capacity on the high ground at Annesley Woodhouse, 600 feet above sea level, which is a sufficient height to fully command the highest villages in Selston Parish.

The land selected for the Reservoir is the very best piece available, it is almost on the direct line of the pumping main and rises rapidly from the main road, so that the inlet and outlet pipes can be connected to it with the smallest amount of excavation.

Negotiations have been entered into with Messrs. Coke, Mills and Coke, on behalf of the Rev. Mr. Woodman, Rector of Kirkby, and a letter has been received from them, saying that the price for the land and way leaves required for the Pumping Station may be taken at £150 ; and the Duke of Portland, through his agent, Mr. Turner, has also agreed to sell the Reservoir Site for £100.

The Reservoir Site has already been leased for mineral purposes, to the Butterley Company, but the workings will not injure the Reservoir, and it is not worth the while of the Authority to purchase the minerals.

The Newstead Colliery Company, under their lease, have rights over the surface as well as the minerals under the Pumping Station Site, and have made these rights the subject of negotiations between the Authority and the Company, and it has been agreed to supply water from the Pumping Main into pipes to be laid by the Company at the rate of sixpence per 1,000 gallons. This arrangement, although the price is rather less than is charged in some cases, will become a source of revenue, and materially assist in paying for the attendance and coal at the Pumping Station, and is a very advantageous feature of the scheme.

From the Reservoir at Annesley Woodhouse, a gravitation main will be carried along Salmon Lane, direct to Wood Nook, and the works proposed are fully illustrated on the map which accompanies this Report.

The Pumping Machinery will consist of High Pressure Expansive Condensing Steam Engines of very economical type, each of which will be capable of pumping 7,000 gallons per hour to the Reservoir, and when working together, during periods of drought and emergencies, they can be made to deliver 14,000 gallons per hour and as it is intended to obtain water in sufficient quantity to keep both sets of machinery running an ample supply for all emergencies will be assured.

The distribution of the water will be divided into three districts. The northern district will supply Portland Road, beyond the Mexborough Colliery, Wood Nook, Alma, Inkerman, Handstubbing, Allen's Green, Rosemary Hill, Dove Green, Selston Green, Toadhole, Selston, and Beaufit Lane, down to Pinxton Station.

The centre district will include Bagthorpe, Westwood, and Jack's Dale, to the parish boundary, near Ironville.

The southern district will include Bagthorpe, Friesland, Underwood, New Brinsley, Wintercloses, and Cordy Lane, to the Eastwood Parish Boundary.

Owing to the elevation of the Underwood District it has been necessary to carry a 6 inch pipe as far as Bagthorpe Common, and a 4 inch pipe forward to Friesland. A length of 4 inch pipe will also be necessary from Wood Nook to Dove Green. Beyond these points owing to the rapid fall of the ground a thoroughly efficient supply can be got through 3 inch pipes, and in the smaller districts wherever it may be properly done the supply will be given from 2 inch pipes.

The ground at the Pumping Station is nearly 500 feet above sea level, and the expense of pumping will consequently be reduced to the minimum. No filtration of the water will be required, and the Reservoir will serve as a cistern for the entire district, and it will only be necessary to lay lead service pipes to the various properties. The water will be laid on constantly under a pressure sufficient to throw an effective fire jet on to all the houses.

The heaviest part of the expenditure will arise in consequence of the straggling manner in which the population has been housed all over the district, which will involve the laying of many miles of unprofitable mains. There is however no possible means of avoiding this outlay, but fortunately, owing to the elevated site which has been secured for the Reservoir, the mains may be kept of the smallest size without sacrificing the efficiency of the work.

The estimates for the whole of the works complete, inclusive of Land, Well, Pumping Station and Gravitation Mains, Distributing Mains, &c., throughout the district, including all the Sluice Valves, Fire Hydrants and Apparatus, and other matters, have been carefully taken out and amount to the sum of £11,800.

An extension was made at Kirkby reaching to the Bricklayer's Arms, near the new M. S. & L. Station, and an order was made in July last for the extension of the Sutton water mains to Fisher's Field and Wesley Street, Kirkby.

A large number of houses have been connected with the public mains. 25 informal notices and 12 statutory notices have been served during the year, and these, with the exception of 3, have been satisfactorily complied with.

Twenty-three samples of water have been examined by myself, and 3 were submitted to a public analyst; of the former 13 and of the latter 2 were unfit for drinking purposes.

**Isolation Hospital.**—In my Report for 1892 I proceeded so far as to say that a central and suitable site had been selected for an Isolation Hospital by the Committee, Messrs. Hanson, Gunn, Lyon, and W. Walker.

The site chosen is situated at Sunrise-hill, Basford, on the road leading from Bagthorpe towards Bulwell Forest, and consists of a level field a little more than 6 acres in extent, lying almost exactly at the centre of the Rural Sanitary District, and within easy reach of water, gas, and drainage facilities.

Mr. Jno. Whyatt, the owner, offered reasonable terms to the Committee for the purchase of the land, and a contract was signed in February to acquire the site for £2,000.



At a Committee Meeting, held on June 3rd, Mr. Herbert Walker, C.E., of Nottingham, was instructed to confer with the Medical Officer of Health, and draw up a rough general outline of what was required; and this was submitted to the next General Meeting of the Authority.

The Committee, with the Clerk, Architect, and myself, on July 5th, visited the Heathcote Isolation Hospital at Leamington, as that Institution is modern, well designed, and somewhat of the size required. The deputation gained much information by the visit, not only from an inspection of the buildings, but also from the valuable suggestions—willingly and courteously offered by the able Chairman of the Health Committee, Alderman S. T. Wackerill, J.P.—as to the working of the Hospital and its general arrangements.

On September 9th Mr. Walker's more detailed plans were examined and adopted, and shortly afterwards were submitted to the Local Government Board, with an application to borrow £11,000 to carry them into effect.

**Nuisances.**—A large number of Common Nuisances have been dealt with during the year—defective ash-pits have supplied the widest field for action and will do so for some time to come.

Complaints regarding pig-styes have been specially numerous on account of the hot season.

**Canal Boats Act.**—The following extracts from the Annual Report of the Inspector of Canal Boats, Mr. William Rossell, show that useful work has been done in this direction :—

On referring to my Journal, I find 69 entries therein of inspections made in the past 12 months, as against 58 inspections in the preceding 12 months. The particulars of these inspections are enumerated below.

Five of the boats had no certificates of registry; one was improperly marked and could not be identified with the owner; and another boat had no water vessel aboard.

On the foregoing breaches of the Canal Boats Acts being discovered, immediate steps were taken by your Authority to have them remedied. Letters were written to the owners pointing out the offences that had

been committed, and their responsibility under the Acts, also the liability of the masters. This action on the part of the Authority has had the desired effect.

In each case complained of, printed certificates were forwarded to the responsible parties which have *all* been returned bearing the signatures of duly appointed Canal Boat Inspectors, certifying that the complaints have been remedied. Thus legal proceedings were avoided.

I am pleased to say that these boats are now working in accordance with the provisions of the statutes and Local Government Board Regulations.

There are no cases of overcrowding in the boats that frequent these waters. Only five women, and two children under school age, have been met with living in the 69 boats examined during the past year.

No infringements of the Education Acts have been observed in boats.

The ventilation and cleanliness of the cabins have, with one exception, been found good. The excepted boat was sent into dry dock by the Manager of the Nottingham Gas Works for repairs, on remonstrance being made to him as to the boats' condition when plying on the canal.

No cases of infectious, or other serious disease have been met with. Although extra care and scrupulous search were bestowed on all boats inspected in the early months of the past year, in accordance with instructions given by H.M. Chief Inspector of Canal Boats, at his annual visit in February last, when there was great dread of Cholera and Small-pox. No such cases were discovered in these waters.

During the coal strike in this mining District, which lasted about 14 weeks, nearly the whole of the boats which periodically visit the canal were laid up, or docked, and all coal traffic ceased. The boatmen were thrown on their own resources, and they were without employment through no fault of their own. This caused considerable suffering amongst the men and their families

**Private Street Works Act, 1892.**—The Local Government Board have invested this Authority with power to deal with Lyncroft and Walker Street, in the parish of Greasley, under this Act ; and Mr. S. Taylor, Surveyor, Nuthall, has been instructed to carry out the work.



At the Meeting of the Authority on December 19th, it was resolved that application should also be made to deal with certain streets at Selston, Mr. Taylor to take the necessary preliminary steps in the matter.

Under the provisions of this Act, where any private street is not sewered, levelled, paved, metalled, flagged, channelled, made good or lighted to the satisfaction of the Rural Sanitary Authority, they may serve notices upon the owners to do any of the above-mentioned work, and if such notice be not complied with, the Rural Sanitary Authority may do the work and recover from the owners the cost of so doing.

**Drainage.**—Preparations for carrying out the Eastwood and Greasley Sewage scheme—the largest which has ever been initiated in the rural district—have been steadily proceeded with.

On August 4th, Mr. Rienzi Walton, M.I.C.E., the inspector appointed by the Local Government Board, held an inquiry in the Mechanics' Hall, Eastwood, to enable him to report on the advisability of granting an application made by the Rural Sanitary Authority to borrow £21,000 for the purposes of sewerage and sewage disposal in the parish of Eastwood, and in part of the parish of Greasley.

The inquiry was well attended by ratepayers, and was thoroughly representative.

Numerous communications have since passed between the Authority and the Local Government Board, with the result that in all probability the work will be actually commenced in the early part of 1894.

The comprehensive scheme will abate many nuisances and will abolish many cases of stream pollution, more especially affecting the Erewash and its tributaries.

The circumstances which led up to the necessity for providing a system of drainage for Awsworth, were fully detailed in my report for 1892.

At the meeting of the Authority on July 5th, Mr. Herbert Walker produced a plan and report on the sewerage of Awsworth, the proposed outfall being the same which is provided for the parishes of Eastwood and Greasley.

The plans were also subsequently laid before a parish meeting at Awsworth, and generally approved, but Mr. Walker was asked to estimate for a scheme independent of the Eastwood and Greasley scheme; this he agreed to do, and to lay before the Authority a comparison of the advantages and cost of the two schemes.

The plans of the proposed drainage system for Kirkby are now in the hands of the Local Government Board.

A scheme, with plans and estimates for the drainage of Codnor and Loscoe have been prepared by Mr. W. H. Radford, C.E., of Nottingham, and a loan of £2000 applied for to carry out the work.

A Local Government Board inquiry was held at Crosshill and Codnor School, on June 16th, at 11 a.m., by Col. Halstead, the Inspector appointed to hold the inquiry.

The Local Government Board wrote under date August 7th, stating that a memorial had been received from ratepayers of the parish of Codnor and Loscoe, as to the application of the Rural Sanitary Authority of the Basford Union for sanction to borrow £7,000 for the purposes of sewerage and sewage disposal. Having regard to the heavy cost of the scheme and to the ratable value of the district, it appeared to the Board to be very desirable that the Authority should further consider the matter with a view of determining whether it would be practicable to provide for the sewerage of the district at a less cost by a modification of the scheme.

The following resolution was unanimously carried at the meeting of the Authority held on September 12th :—

“That the Rural Sanitary Authority having had before them the subjects of the sewerage and sewerage disposal of Codnor during the last seven years, and there having already been three inquiries thereon by the Local Government Board in the parish, consider that there has been sufficient consideration given to the question, and that the plans now before the Local Government Board correctly represents what requires to be done in efficiently dealing with the drainage of the place, and that the Authority regret that they are unable to suggest any modification of the scheme. They, therefore, leave the application for a loan of £7,000 to carry out the proposed scheme of drainage of the parish in the hands of the Local Government Board, to be dealt with as they think fit.”

A letter, dated 4th October, was received from the Local Government Board, relative to the application of the Authority, for sanction to borrow £7,000 for the purposes of the drainage of Codnor-cum-Loscoe, stating that, owing to the fact that the day in which the last inquiry was held was pay day for the colliers, and inconvenient for many who might have attended to give evidence, and by regard to the heavy cost of the proposal, they thought it desirable that the inquiry should be re-opened, and such new inquiry would be held when arrangements permitted.

At the end of the year the date of this fourth inquiry had not been fixed.

**Elementary Schools.**—Alterations have been made in the sanitary arrangements at the Kirkby Woodhouse School. The closets and ashpits at this school were far too near the class rooms, and the ashpits were much too large. They have now been built of a reasonable size and at a proper distance from the school.

The National School, Linby, was closed on account of Diphtheria among some of the scholars, by my advice on March 25th, and during the absence of the children, the large midden ashpits were emptied of their contents and filled up with earth, and pail closets substituted.

At the Mill Lane School, Codnor, the privies and ashpits have been moved to a greater distance from the school rooms.

The Burton Joyce School was closed on account of scarlet fever from July 21st, to September 4th.

I inspected and reported on the Ruddington Schools in August with special reference to the condition of the Temperance Hall (mixed) school.

This was in an insanitary condition and the Committee very properly decided to no longer use this as a school, but to provide more accommodation on their other school site.

The Bunny School was closed from October 31st, to November 27th, on account of the existence of scarlet fever in that village and at Bradmore. The children from the latter village attend the Bunny School.

Some alterations are also in progress at the Brinsley Moor School.

The sanitation of the Elementary Schools is, though mentioned last, far from being the least important matter with which you as a Sanitary Authority have to deal. The existing arrangements are by no means adapted in all cases to promote the health of the scholars or teachers.

The considerable number of hours per week which the children and the instructors, under the present exigencies of modern education, are required to spend in the school room, call for much better methods of ventilation and warming than those I usually meet with.

I have to acknowledge the universal courtesy extended to me by the School Committees in the district, and by their Officers who have on all occasions co-operated in helping to prevent the spread of infectious diseases, and also in the majority of cases, have carried out my recommendations regarding school sanitation.

I have the honour to be,

Gentlemen,

Your obedient Servant,

JAMES SCOTT TEW.



(A)

TABLE OF DEATHS during the Year 1893, in the Rural Sanitary District of Basford; classified according to Diseases, Ages, and Localities.

| NAMES OF LOCALITIES adopted for the purpose of these Statistics; Public Institutions being shown as separate localities. | MORTALITY FROM ALL CAUSES, AT SUBJOINED AGES. |               |                |                 |                  |                  |                 | MORTALITY FROM SUBJOINED CAUSES, DISTINGUISHING DEATHS OF CHILDREN UNDER FIVE YEARS OF AGE. |               |               |                     |           |                       |              |              |              |             |                |             |                    |                             |                     |          |              |   |                   |              |                        |          |     |     |
|--|---|---------------|----------------|-----------------|------------------|------------------|-----------------|---|---------------|---------------|---------------------|-----------|-----------------------|--------------|--------------|--------------|-------------|----------------|-------------|--------------------|-----------------------------|---------------------|----------|--------------|---|-------------------|--------------|------------------------|----------|-----|-----|
|  | At all Ages.                                  | Under 1 year. | 1 and under 5. | 5 and under 15. | 15 and under 25. | 25 and under 65. | 65 and upwards. | 1 Smallpox.   | 2 Scarlatina. | 3 Diphtheria. | 4 Membranous Croup. | FEVERS.   |                       |              |              |              | 10 Cholera. | 11 Erysipelas. | 12 Measles. | 13 Whooping Cough. | 14 Diarrhoea and Dysentery. | 15 Rheumatic Fever. | 16 Ague. | 17 Phthisis. | 18 Bronchitis, Pneumonia, and Pleurisy. | 19 Heart Disease. | 20 Injuries. | 21 All Other Diseases. | 22 Total |     |     |
|  |   |               |                |                 |                  |                  |                 |   |               |               |                     | 9 Typhus. | 9 Enteric or Typhoid. | 7 Continued. | 3 Relapsing. | 6 Puerperal. |             |                |             |                    |                             |                     |          |              |   |                   |              |                        |          |     |     |
| Gresley ...  | 586   | 225           | 85             | 22              | 43               | 111              | 100             | Under 5<br>5 upwds.   | 1             | 5             | 1                   | ...       | 1                     | ...          | ...          | 4            | ...         | ...            | 5           | 19                 | 30                          | ...                 | ...      | ...          | ...                                     | 53                | 1            | 3                      | 186      | 310 |     |
| Ilkeston ...   | 18  | 9             | ...            | ...             | ...              | 3                | 6               | Under 5<br>5 upwds.   | ...           | ...           | ...                 | ...       | ...                   | ...          | ...          | ...          | ...         | ...            | ...         | ...                | ...                         | 1                   | ...      | ...          | ...                                     | ...               | ...          | ...                    | ...      | ... | 276 |
| Basford ..   | 10  | 1             | 1              | 1               | 3                | 2                | 2               | Under 5<br>5 upwds.   | ...           | ...           | ...                 | ...       | ...                   | ...          | ...          | ...          | ...         | ...            | ...         | ...                | ...                         | ...                 | ...      | ...          | ...                                     | 1                 | ...          | 1                      | 7        | 8   |     |
| Bulwell ...  | 30  | 9             | 3              | 2               | 4                | 5                | 7               | Under 5<br>5 upwds.   | ...           | ...           | ...                 | ...       | 1                     | ...          | ...          | ...          | ...         | ...            | ...         | 1                  | ...                         | ...                 | ...      | ...          | ...                                     | 1                 | 2            | ...                    | 9        | 12  |     |
| Arnold ...   | 64  | 20            | 2              | 6               | 5                | 16               | 15              | Under 5<br>5 upwds.   | 1             | ...           | ...                 | ...       | 3                     | 1            | ...          | 1            | ...         | ...            | ...         | ...                | 1                           | ...                 | ...      | ...          | ...                                     | 6                 | ...          | ...                    | 13       | 22  |     |
| Carlton ...  | 28  | 6             | ...            | ...             | 1                | 9                | 12              | Under 5<br>5 upwds.   | ...           | ...           | ...                 | ...       | 1                     | ...          | ...          | ...          | ...         | ...            | ...         | ...                | ...                         | ...                 | ...      | ...          | ...                                     | 1                 | 3            | ...                    | 5        | 6   |     |
| Wilford ...  | 100   | 30            | 5              | 4               | 5                | 27               | 29              | Under 5<br>5 upwds.   | ...           | 1             | ...                 | ...       | 1                     | ...          | ...          | ...          | ...         | ...            | ...         | ...                | 2                           | 1                   | ...      | ...          | ...                                     | 2                 | 6            | ...                    | 29       | 35  |     |
| TOTALS ...   | 836   | 300           | 96             | 35              | 61               | 173              | 171             | Under 5<br>5 upwds.   | ...           | 3             | 5                   | 1         | 1                     | 1            | ...          | 5            | ...         | ...            | ...         | 20                 | 35                          | ...                 | 7        | ...          | ...                                     | 5                 | 67           | 1                      | 3        | 248 | 396 |
|  |   |               |                |                 |                  |                  |                 |   | 2             | 4             | ..                  | ...       | 16                    | ...          | ...          | ...          | ...         | ...            | ...         | 1                  | 11                          | ...                 | ...      | ...          | 34                                      | 73                | 46           | 17                     | 219      | 440 |     |





TABLE I.

*Shewing the Population, Inhabited Houses, Marriages, Births, and Deaths,  
for the year 1893, and 10 preceding years.*

| The Year.               | Estimated<br>Population. | No. of<br>Inhabited<br>Houses. | Marriages | Registered<br>Births. | Corrected No. of Deaths. |                  |                   | Deaths in<br>Public<br>Institutions. |
|-------------------------|--------------------------|--------------------------------|-----------|-----------------------|--------------------------|------------------|-------------------|--------------------------------------|
|                         |                          |                                |           |                       | Total at<br>all Ages     | Under<br>1 year. | Under<br>5 years. |                                      |
| 1893                    | 53011                    | 10553                          | 636       | 2009                  | 836                      | 300              | 396               | 24                                   |
| 1892                    | 52165                    | 10384                          | 681       | 1914                  | 954                      | 326              | 485               | 35                                   |
| 1891                    | 53627                    | 10755                          | 671       | 1988                  | 869                      | 285              | 366               | 32                                   |
| 1890                    | 52000                    | 9828                           | 751       | 1846                  | 935                      | 311              | 123               | 25                                   |
| 1889                    | 52000                    | 9828                           | 592       | 1821                  | 815                      | 258              | 110               | 90                                   |
| 1888                    | 51957                    | 9828                           | 680       | 1757                  | 775                      | 244              | 103               | 79                                   |
| 1887                    | 51312                    | 9724                           | 523       | 1772                  | 755                      | 216              | 88                | 84                                   |
| 1886                    | 48820                    | 9458                           | 534       | 1884                  | 923                      | 315              | 117               | 95                                   |
| 1885                    | 48240                    | 9321                           | 500       | 1815                  | 735                      | 204              | 107               | 60                                   |
| 1884                    | 47667                    | ...                            | 672       | 1826                  | 872                      | 305              | 143               | 72                                   |
| 1883                    | 46713                    | ...                            | 705       | 1742                  | 795                      | ...              | ...               | 81                                   |
| Average of<br>10 years. | 50450·1                  | ...                            | 694·5     | 1836·5                | 842·8                    | ...              | ...               | 653                                  |

TABLE II.

*Shewing the Annual Birth and Death Rates, Death Rates of Children, and Proportion of Deaths in Public Institutions in a Thousand Deaths, for the year 1893, and preceding years.*

| In Year.             | Birth rate per 1000 of Population. | Corrected death Rate per 1000 of Population. | Deaths of Children under 1 year per 1000 Registered Births | Deaths of Children under 1 year per 1000 of Total Deaths. | Deaths of Children under 5 years per 1000 of Total Deaths. | Deaths in Public Institutions per 1000 of Total Deaths. |
|----------------------|------------------------------------|--|--|---|--|---|
| 1893                 | 37.90                              | 15.77  | 149.32   | 358.85  | 473.68   | 20.06   |
| 1892                 | 36.69                              | 18.28  | 170.03   | 341.71  | 508.38   | 36.68   |
| 1891                 | 37.50                              | 16.39  | 143.36   | 327.96  | 421.17   | 36.8  |
| 1890                 | 35.50                              | 17.90  | 168.47   | 332.62  | 464.17   | 26.7  |
| 1889                 | 35.00                              | 15.68  | 142.22   | 316.56  | 451.53   | 110.42  |
| 1888                 | 33.80                              | 14.90  | 137.73   | 312.25  | 441.27   | 101.93  |
| 1887                 | 34.53                              | 14.73  | 121.18   | 287.41  | 402.64   | 111.25  |
| 1886                 | 38.31                              | 18.75  | 169.32   | 345.61  | 468.03   | 102.91  |
| 1885                 | 37.62                              | 15.02  | 112.39   | 277.55  | 423.12   | 81.63   |
| 1884                 | 38.47                              | 18.14  | 167.03   | 349.77  | 513.76   | 94 (cir.)   |
| 1883                 | 37.67                              | 17.19  | ...  | ...   | ...  | ...   |
| Average of 10 years. | 36.50                              | 16.69  | ...  | ...   | ...  | ...   |

TABLE No. III

## BASFORD UNION RURAL SANITARY DISTRICT.

Deaths Registered from all Causes during the Year 1893.

|  | AGES.        |              |               |                |                |                |                |                |                |                |                      | TOTAL. |
|--|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|--------|
|  | 0<br>to<br>1 | 1<br>to<br>5 | 5<br>to<br>15 | 15<br>to<br>25 | 25<br>to<br>35 | 35<br>to<br>45 | 45<br>to<br>55 | 55<br>to<br>65 | 65<br>to<br>75 | 75<br>to<br>85 | 85<br>& up-<br>wards |        |
| I. SPECIFIC FEBRILE, OR ZYMOTIC DISEASES .....               | 52           | 26           | 11            | 12             | 9              | 7              | 5              | 8              | 13             | 5              | ...                  | 148    |
| II. PARASITIC DISEASES .....                                 | 1            | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| III. DIETIC DISEASES .....                                   | ..           | ...          | ...           | ...            | ...            | 2              | ...            | ...            | ...            | ...            | ...                  | 2      |
| IV. CONSTITUTIONAL DISEASES .....                            | 17           | 12           | 8             | 14             | 11             | 10             | 6              | 14             | 8              | 5              | ...                  | 105    |
| V. DEVELOPMENTAL DISEASES .....                              | 57           | ...          | ...           | ...            | ...            | ...            | ...            | ...            | 5              | 20             | 12                   | 94     |
| VI. LOCAL DISEASES .....                                     | 118          | 49           | 13            | 26             | 12             | 17             | 18             | 39             | 55             | 30             | 4                    | 370    |
| VII. DEATHS FROM VIOLENCE .....                              | 55           | 6            | 3             | 9              | 9              | 3              | 3              | 4              | 3              | 3              | ...                  | 43     |
| VIII. DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES ..... | ..           | 3            | ...           | ...            | 1              | 1              | ...            | 4              | 4              | 5              | ...                  | 73     |
| TOTALS .....   | 300          | 96           | 35            | 61             | 42             | 40             | 32             | 69             | 88             | 68             | 16                   | 836    |
| 1.—SPECIFIC FEBRILE, OR ZYMOTIC DISEASES.                    |              |              |               |                |                |                |                |                |                |                |                      |        |
| 1.—MIASMATIC DISEASES.                                       |              |              |               |                |                |                |                |                |                |                |                      |        |
| Smallpox, Vaccinated, Unvaccinated ...                       | ...          | ...          | 1             | 1              | ...            | ..             | ...            | ...            | ...            | ...            | ...                  | 2      |
| Measles .....  | 3            | 2            | ...           | ..             | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 5      |
| Scarlet Fever .....  | ..           | 3            | 2             | 2              | ...            | ...            | ...            | ...            | ...            | ..             | ...                  | 7      |
| Typhus .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Whooping Cough .....   | 9            | 11           | 1             | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 21     |
| Diphtheria .....   | 1            | 4            | 3             | ..             | ..             | ...            | ...            | ...            | ...            | ...            | ...                  | 8      |
| Simple Continued and Ill-defined Fever .....                 | 1            | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| Enteric or Typhoid Fever .....                               | ...          | 1            | 3             | 5              | 4              | 3              | ...            | 1              | ...            | ...            | ...                  | 17     |
| Influenza .....  | 3            | 3            | ...           | ..             | 2              | 2              | 2              | 4              | 10             | 2              | ...                  | 28     |
| 2.—DIARRHŒAL DISEASES.                                       |              |              |               |                |                |                |                |                |                |                |                      |        |
| Simple Cholera .....   | ...          | ..           | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Diarrhœa, Dysentery .....                                    | 33           | 2            | 1             | ...            | 1              | ...            | 1              | 3              | 3              | 2              | ...                  | 46     |
| 3.—MALARIAL DISEASES.  |              |              |               |                |                |                |                |                |                |                |                      |        |
| ..   | ..           | ..           | ..            | ...            | ...            | ...            | ...            | ...            | ...            | ..             | ..                   | ...    |
| 4.—ZOOGENOUS DISEASES.                                       |              |              |               |                |                |                |                |                |                |                |                      |        |
| ...  | ...          | ...          | ...           | ...            | ..             | ...            | ...            | ...            | ..             | ..             | ...                  | ...    |
| 5.—VENEREAL DISEASES.  |              |              |               |                |                |                |                |                |                |                |                      |        |
| Syphilis .....   | ..           | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ..             | ...            | ..                   | ...    |
| Gonorrhœa, Stricture of Urethra .....                        | ...          | ...          | ...           | ...            | ...            | ...            | ..             | ...            | ...            | ..             | ...                  | ...    |
| 6.—SEPTIC DISEASES.  |              |              |               |                |                |                |                |                |                |                |                      |        |
| Erysipelas .....   | 1            | ...          | ...           | 1              | ...            | ...            | ...            | ...            | ...            | 1              | ...                  | 3      |
| Pyæmia, Septicæmia .....                                     | 1            | ...          | ...           | 1              | 1              | 1              | 1              | ...            | ...            | ...            | ...                  | 5      |
| Puerperal Fever .....  | ...          | ...          | ...           | 2              | 1              | 1              | 1              | ...            | ...            | ...            | ...                  | 5      |



## Deaths Registered from all Causes during the Year 1893.

|  | AGES.        |              |               |                |                |                |                |                |                |                |                       |        |
|--|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|-----------------------|--------|
|  | 0<br>to<br>1 | 1<br>to<br>5 | 5<br>to<br>15 | 15<br>to<br>25 | 25<br>to<br>35 | 35<br>to<br>45 | 45<br>to<br>55 | 55<br>to<br>65 | 65<br>to<br>75 | 75<br>to<br>85 | 85<br>& up-<br>wards. | Total. |
| 3.—DISEASES OF CIRCULATORY SYSTEM.   |              |              |               |                |                |                |                |                |                |                |                       |        |
| Pericarditis .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| Acute Endocarditis .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| Valvular Diseases of Heart .....   | 1            | ...          | 1             | 2              | 1              | 4              | 2              | 3              | 5              | 4              | ...                   | 23     |
| Other Diseases of Heart .....  | ...          | ...          | 1             | 2              | ...            | ...            | 6              | 7              | 5              | 2              | 1                     | 24     |
| Aneurism .....   | ...          | ...          | ...           | ...            | ...            | 1              | ...            | ...            | ...            | ...            | ...                   | 1      |
| Embolism, Thrombosis .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | 1              | ...            | ...                   | ...    |
| Other Diseases of Blood Vessels .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | 4              | ...            | ...                   | ...    |
| 4.—DISEASES OF RESPIRATORY SYSTEM.   |              |              |               |                |                |                |                |                |                |                |                       |        |
| Laryngitis .....   | 1            | 2            | 1             | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | 4      |
| Croup .....  | 1            | 3            | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | 4      |
| Emphysema, Asthma .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | 1              | 1              | ...            | ...                   | 2      |
| Bronchitis .....   | 33           | 14           | ..            | 1              | 1              | 1              | 2              | 5              | 22             | 12             | 2                     | 93     |
| Pneumonia .....  | 5            | 6            | 1             | 2              | 4              | 4              | ..             | 6              | 2              | ...            | ...                   | 30     |
| Pleurisy .....   | ...          | ...          | ...           | 1              | 1              | ..             | ...            | ...            | ..             | ...            | ...                   | 2      |
| Other Diseases of Respiratory System..   | 10           | 4            | 2             | 1              | ...            | 1              | ..             | ..             | 1              | ...            | ...                   | 19     |
| 5.—DISEASES OF DIGESTIVE SYSTEM.   |              |              |               |                |                |                |                |                |                |                |                       |        |
| Dentition .....  | 13           | 2            | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | 15     |
| Sore Throat, Quinsy .....  | ...          | 1            | ...           | ...            | ...            | ..             | ...            | ...            | ...            | ...            | ...                   | 1      |
| Diseases of Stomach .....  | 8            | 1            | ...           | 1              | ..             | 1              | 1              | ...            | 1              | ...            | ...                   | 13     |
| Enteritis .....  | 6            | 2            | ..            | ...            | ...            | ...            | ...            | ...            | 1              | ...            | ...                   | 9      |
| Obstructive Diseases of Intestine.....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | 1              | 1              | ...                   | 2      |
| Peritonitis .....  | 1            | 1            | ...           | ...            | ...            | ...            | ...            | ...            | 1              | ...            | ...                   | 3      |
| Ascites .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| Cirrhosis of Liver .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | 2              | ...            | 1              | ...                   | 3      |
| Jaundice and other Diseases of Liver..   | ...          | ..           | ...           | ...            | ...            | ...            | 3              | 1              | ...            | ...            | ...                   | 4      |
| Other Diseases of Digestive System....   | 2            | ...          | ...           | ...            | ...            | ...            | ..             | ..             | ...            | ...            | ...                   | 2      |
| 6.—DISEASES OF LYMPHATIC SYSTEM.<br>( <i>e.g.</i> , of Lymphatics and of Spleen) ..                      |              |              |               |                |                |                |                |                |                |                |                       |        |
| ...  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| 7.—DISEASES OF GLAND-LIKE ORGANS<br>OF UNCERTAIN USE.<br>( <i>e.g.</i> , Bronchocele, Addison's Disease) |              |              |               |                |                |                |                |                |                |                |                       |        |
| ...  | ...          | ...          | ...           | ...            | ...            | ...            | ..             | ...            | ...            | ...            | ...                   | ...    |
| 8.—DISEASES OF URINARY SYSTEM.   |              |              |               |                |                |                |                |                |                |                |                       |        |
| Nephritis .....  | ...          | 1            | ...           | 1              | ...            | ...            | ...            | 1              | 1              | ...            | ...                   | 4      |
| Bright's Disease, Albuminuria .....  | ...          | ..           | 1             | ...            | ...            | ...            | ...            | ...            | 2              | ...            | ...                   | 3      |
| Disease of Bladder or of Prostate .....  | ...          | ...          | ..            | ...            | ...            | ...            | ...            | 3              | ...            | 2              | ...                   | 5      |
| Other Diseases of the Urinary System..   | ...          | ...          | ..            | 1              | ...            | ...            | 1              | ...            | 2              | ...            | ...                   | 4      |
| 9.—DISEASES OF REPRODUCTIVE SYSTEM.  |              |              |               |                |                |                |                |                |                |                |                       |        |
| A. Of Organs of Generation.  |              |              |               |                |                |                |                |                |                |                |                       |        |
| Male Organs .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ..             | ...            | ...                   | ...    |
| Female Organs .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| B. Of Parturition.   |              |              |               |                |                |                |                |                |                |                |                       |        |
| Abortion, Miscarriage .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ..             | ...                   | ...    |
| Puerperal Convulsions.....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                   | ...    |
| Placenta prævia, Flooding.....   | ...          | ...          | ...           | ...            | ...            | 3              | ...            | ...            | ...            | ...            | ...                   | 3      |
| Other Accidents of Child Birth .....   | ...          | ...          | ...           | 2              | 1              | 1              | ...            | ...            | ...            | ...            | ...                   | 4      |



## Deaths Registered from all Causes during the Year 1893.

|   | AGES.        |              |               |                |                |                |                |                |                |                |                      |        |
|---|--------------|--------------|---------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------------|--------|
|   | 0<br>to<br>1 | 1<br>to<br>5 | 5<br>to<br>15 | 15<br>to<br>25 | 25<br>to<br>35 | 35<br>to<br>45 | 45<br>to<br>55 | 55<br>to<br>65 | 65<br>to<br>75 | 75<br>to<br>85 | 85<br>& up-<br>wards | Total. |
| 10.—DISEASES OF BONES AND JOINTS.                       |              |              |               |                |                |                |                |                |                |                |                      |        |
| Caries, Necrosis .....                                  | ...          | 1            | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| Arthritis, Ostitis, Periostitis .....                   | ...          | ..           | 1             | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Other Diseases of Bones and Joints.....                 | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| 11.—DISEASES OF INTEGUMENTARY SYSTEM.                   |              |              |               |                |                |                |                |                |                |                |                      |        |
| Carbuncle, Phlegmon .....                               | ...          | ...          | ...           | ...            | ...            | 1              | ...            | ...            | ...            | ...            | ...                  | 1      |
| Other Diseases of Integumentary System                  | 4            | ..           | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 4      |
| VII.—DEATHS FROM VIOLENCE.                              |              |              |               |                |                |                |                |                |                |                |                      |        |
| 1.—ACCIDENT OR NEGLIGENCE.                              |              |              |               |                |                |                |                |                |                |                |                      |        |
| Fractures and Contusions .....                          | ...          | ...          | ...           | 1              | ...            | 1              | ...            | ...            | ...            | ...            | ...                  | 2      |
| Gunshot Wounds .....                                    | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Cut, Stab .....   | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Burn, Scald .....                                       | ...          | 2            | ...           | ...            | 1              | ...            | ...            | ...            | ...            | 1              | ...                  | 4      |
| Poison .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Drowning .....  | ...          | 2            | 2             | 4              | 1              | 2              | 1              | ...            | ...            | ...            | ...                  | 12     |
| Suffocation .....                                       | ...          | 1            | ...           | ...            | ...            | ...            | ...            | 1              | ...            | ...            | ...                  | 2      |
| Otherwise .....   | ...          | 1            | 1             | 3              | 3              | ...            | 2              | 2              | 1              | 1              | ...                  | 14     |
| 2.—HOMICIDE.  |              |              |               |                |                |                |                |                |                |                |                      |        |
| Manslaughter .....                                      | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Murder .....  | ...          | ...          | ...           | ...            | 1              | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| 3.—SUICIDE.   |              |              |               |                |                |                |                |                |                |                |                      |        |
| Gunshot Wounds .....                                    | ..           | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Cut, Stab.....  | ..           | ...          | ...           | ...            | ...            | ...            | ...            | 1              | ...            | ...            | ...                  | 1      |
| Poison .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Drowning .....  | ...          | ...          | ...           | 1              | 2              | ...            | ...            | 1              | ...            | ...            | ...                  | 4      |
| Hanging.....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | 1              | ...                  | 1      |
| Otherwise .....   | ...          | ...          | ...           | ...            | 1              | ...            | ...            | ...            | 1              | ..             | ...                  | 2      |
| 4.—EXECUTION.   |              |              |               |                |                |                |                |                |                |                |                      |        |
| Hanging.....  | ...          | ...          | ...           | ...            | ...            | ..             | ...            | ...            | ...            | ...            | ...                  | ...    |
| VIII.—DEATHS FROM ILL-DEFINED AND NOT SPECIFIED CAUSES. |              |              |               |                |                |                |                |                |                |                |                      |        |
| Dropsy .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Debility, Atrophy, Inanition.....                       | 53           | 3            | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | 56     |
| Mortification .....                                     | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Tumour .....  | ...          | ...          | ...           | ...            | ...            | 1              | ...            | 1              | 1              | ...            | ...                  | 3      |
| Abscess .....   | ...          | ...          | ...           | ...            | 1              | ...            | ...            | ...            | ...            | ...            | ...                  | 1      |
| Hæmorrhage .....  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | ...            | ...            | ...                  | ...    |
| Sudden Death (cause not ascertained)..                  | ...          | ...          | ...           | ...            | ...            | ...            | ...            | ...            | 3              | ...            | ...                  | 3      |
| Causes not Specified or Ill-defined ....                | 2            | ...          | ...           | ...            | ...            | ...            | ...            | 3              | ...            | 5              | ...                  | 10     |

## SUMMARY OF TABLE III.

| No. of Deaths                                     |     | No. of Deaths |     |
|---|-----|---------------|-----|
| I.—Specific Febrile, or Zymotic Diseases.         |     |               |     |
| 1. Miasmatic Diseases                             | ... | ...           | 89  |
| 2. Diarrhoeal                                     | ... | ...           | 46  |
| 3. Malarial                                       | ... | ...           | ... |
| 4. Zoogenous                                      | ... | ...           | ... |
| 5. Venereal                                       | ... | ...           | ... |
| 6. Septic   | ... | ...           | 13  |
| II.—Parasitic Diseases                            |     | ...           | 1   |
| III.—Dietic Diseases                              |     | ...           | 2   |
| IV.—Constitutional Diseases                       |     | ...           | 105 |
| V.—Developmental Diseases                         |     | ...           | 94  |
| VI.—Local Diseases.                               |     | ...           | ... |
| 1. Diseases of Nervous System                     | ... | ...           | 85  |
| 2. Diseases of Organs of Special Sense            | ... | ...           | 1   |
| 3. Diseases of Circulatory System                 | ... | ...           | 48  |
| 4. Diseases of Respiratory System                 | ... | ...           | 154 |
| 5. Diseases of Digestive System                   | ... | ...           | 52  |
| <i>Carried forward</i>                            |     | ...           | 690 |
| Brought forward                                   |     | ...           | 690 |
| VI.—Local Diseases—continued.                     |     | ...           | ... |
| 6. Diseases of Lymphatic System                   | ... | ...           | ... |
| 7. Diseases of Gland-like Organs of uncertain use | ... | ...           | ... |
| 8. Diseases of Urinary System                     | ... | ...           | 16  |
| 9. Diseases of Reproductive System                | ... | ...           | ... |
| (a). Diseases of Organs of Generation             | ... | ...           | ... |
| (b). Diseases of Parturition                      | ... | ...           | 7   |
| 10. Diseases of Bones and Joints                  | ... | ...           | 2   |
| 11. Diseases of Integumentary System...           | ... | ...           | 5   |
| VII.—Violence.                                    |     | ...           | ... |
| 1. Accident or Negligence                         | ... | ...           | 34  |
| 2. Homicide                                       | ... | ...           | 1   |
| 3. Suicide  | ... | ...           | 8   |
| 4 Execution                                       | ... | ...           | ... |
| VIII.—Ill-defined and not specified causes        |     | ...           | 73  |
| TOTAL   |     | ...           | 836 |

TABLE IV.

*Shewing the number of Deaths at all ages in 1893 from certain groups of Diseases, and proportion to 1000 of Population and to 1000 Deaths from all causes; also the number of Deaths of Infants under one year of age from other groups of Diseases; and proportion to 1000 Births and 1000 Deaths from all causes under one year.*

| Division 1.<br>All Ages.  | Total Deaths. | Deaths per 1000<br>of population at<br>all ages. | Deaths per 1000 of<br>Total Deaths at all<br>ages.    |
|---|---------------|--|---|
| 1. Principal Zymotic }<br>Diseases ... .. }                     | 107           | 2.01   | 127.99  |
| 2. Pulmonary Dis- }<br>eases, other than }<br>Phthisis ... .. } | 154           | 2.90   | 184.21  |
| 3. Principal Tuber- }<br>cular Diseases... }                    | 47            | 0.88   | 56.22   |
| Division 2.<br>Infants under 1 year.                            | Total Deaths. | Deaths per 1000<br>of Births.                    | Deaths per 1000 of<br>Total Deaths under<br>one year. |
| 4. Wasting Diseases...  | 113           | 56.24  | 376.66  |
| 5. Convulsive Diseases  | 58            | 28.87  | 193.33  |

*Note.*—1. Includes Small Pox, Scarlet Fever, Diphtheria, Typhus, Enteric and Simple Continued Fevers, Whooping Cough, Measles, and Diarrhœa.

2. All Respiratory Diseases except Phthisis.

3. Phthisis, Scrofula, Tuberculosis, and Tabes Mesenterica.

4. Marasmus, Atrophy, Wasting, Debility, Inanition, Premature Birth, and Improper Feeding.

5. Hydrocephalus, Infantile Meningitis, Convulsions, and Dentition.

TABLE V.

*Shewing the number of Deaths from the principal Zymotic Diseases in the 10 years 1883 to 1892, and in the year 1893.*

| DISEASE.                 | 1892.  | 1891.  | 1890.  | 1889.  | 1888.  | 1887.  | 1886.  | 1885.  | 1884.  | 1883.  | Annual average of 10 years. | Proportion of deaths to 1000 deaths in 10 years. | Total deaths in 1893. | Proportion of deaths to 1000 deaths in 1893. |
|--------------------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-----------------------------|--|-----------------------|--|
| Small Pox ...            | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 6      | 0                           | 0  | 2                     | 2·39   |
| Measles ...              | 39     | 6      | 51     | 2      | 8      | 15     | 17     | 5      | 48     | 9      | 20·0                        | 23·84  | 5                     | 5·98   |
| Scarlet Fever ...        | 17     | 19     | 6      | 10     | 8      | 4      | 5      | 47     | 32     | 14     | 16·2                        | 19·22  | 7                     | 8·37   |
| Diphtheria ...           | 5      | 3      | 1      | 1      | 6      | 6      | 4      | 3      | 16     | 22     | 6·7                         | 7·94   | 8                     | 9·56   |
| Whooping Cough.          | 35     | 13     | 14     | 21     | 20     | 2      | 30     | 15     | 28     | 11     | 18·9                        | 22·42  | 21                    | 25·12  |
| (Typhus ...              | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 0      | 1      | 0·1                         | 0·12   | ...                   | ...  |
| (Enteric ...             | 15     | 13     | 19     | 26     | 12     | 18     | 10     | 11     | 10     | 7      | 14·1                        | 16·73  | 17                    | 20·33  |
| (Simple Contd.           | 0      | 0      | 2      | 0      | 0      | 0      | 0      | 1      | 2      | 1      | 0·6                         | ·71  | 1                     | 1·19   |
| Diarrhoea ...            | 27     | 15     | 29     | 42     | 40     | 27     | 42     | 38     | 38     | 20     | 31·8                        | 38·91  | 46                    | 55·02  |
| TOTALS ...               | 138    | 69     | 122    | 102    | 94     | 72     | 108    | 120    | 174    | 85     | 108·4                       | 129·89   | 107                   | 127·96                                       |
| TOTALS—London            | 11,983 | 9,675  | 12,271 | 9,709  | 10,803 | 12,684 | 11,121 | 11,261 | 13,629 | 10,801 | 11,393·7                    |  | 13,223                | 144·45                                       |
| TOTALS—England and Wales | 56,032 | 53,221 | 59,698 | 61,027 | 50,684 | 64,676 | 62,859 | 57,726 | 71,762 | 58,972 | 59,665·7                    |  | 73,499                | 128·95                                       |







## THE SUB-DISTRICTS.

The following table of estimated populations, with birth rates and death rates, both general and particular, for the several divisions of the district during the past 5 years, will be found useful for purposes of comparison. I may point out that the infant rates represent the annual number of deaths of infants under one year, 1stly, to every 1,000 deaths, and 2ndly, to every 1,000 births, and that all the other rates represent annual amounts per 1,000 of population estimated to be living at the mid-year.

Birth and Death  
Rates of Sub-  
districts.

| Sub-Districts. | Estimated Population. | Birth Rate.                           |       |       |       |       | Death Rate.                           |       |       |       |       | Infant Death Rate.                    |       |       |       |       | Zymotic Death Rate.                   |       |       |       |       | Phthisis Death Rate.                  |       |       |       |       |       |       |       |       |       |
|----------------|-----------------------|---------------------------------------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|---------------------------------------|-------|-------|-------|-------|-------|-------|-------|-------|-------|
|                |                       | 1893.   1892.   1891.   1890.   1889. |       |       |       |       | 1893.   1892.   1891.   1890.   1889. |       |       |       |       | 1893.   1892.   1891.   1890.   1889. |       |       |       |       | 1893.   1892.   1891.   1890.   1889. |       |       |       |       | 1893.   1892.   1891.   1890.   1889. |       |       |       |       |       |       |       |       |       |
|                |                       | 1893.                                 | 1892. | 1891. | 1890. | 1889. | 1893.                                 | 1892. | 1891. | 1890. | 1889. | 1893.                                 | 1892. | 1891. | 1890. | 1889. | 1893.                                 | 1892. | 1891. | 1890. | 1889. | 1893.                                 | 1892. | 1891. | 1890. | 1889. | 1893. | 1892. | 1891. | 1890. | 1889. |
| Greasley ...   | 35220                 | 41.5                                  | 39.4  | 40.6  | 39.9  | 39.1  | 16.6                                  | 19.2  | 16.8  | 19.3  | 16.8  | 383.9                                 | 366.9 | 363.9 | 362.1 | 312.7 | 153.5                                 | 179.0 | 150.6 | 175.4 | 134.7 | 2.4                                   | 3.1   | 1.6   | 3.2   | 1.4   | 0.8   | 0.7   | 0.8   | 1.3   | 1.6   |
| Ilkeston ...   | 2080                  | 31.1                                  | 29.3  | 34.6  | 41.7  | 32.2  | 8.5                                   | 19.8  | 21.7  | 19.6  | 17.0  | 500.0                                 | 200.0 | 238.0 | 387.0 | 222.2 | 125.0                                 | 135.5 | 149.2 | 181.8 | 117.6 | 0.4                                   | 1.9   | 1.0   | 1.8   | 0.6   | 0.0   | 0.4   | 0.5   | 0.6   | 0.6   |
| Basford ...    | 641                   | 21.8                                  | 23.1  | 21.4  | 14.8  | 28.3  | 15.6                                  | 10.8  | 15.6  | 9.4   | 10.8  | 100.0                                 | 285.5 | 500.0 | 0.0   | 125.0 | 71.4                                  | 133.3 | 142.8 | 0.0   | 47.6  | 0.0                                   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   | 0.0   |
| Bulwell ...    | 3113                  | 36.6                                  | 40.7  | 39.4  | 34.0  | 24.3  | 9.6                                   | 6.1   | 12.9  | 16.5  | 10.3  | 300.0                                 | 334.6 | 384.6 | 411.7 | 406.2 | 78.9                                  | 160.0 | 126.0 | 200.0 | 173.3 | 0.9                                   | 1.3   | 1.3   | 0.6   | 0.6   | 0.6   | 0.6   | 1.9   | 0.3   | 0.3   |
| Arnold ...     | 4397                  | 31.8                                  | 34.4  | 31.1  | 29.5  | 29.1  | 14.5                                  | 16.7  | 17.6  | 14.5  | 12.4  | 312.5                                 | 337.8 | 230.7 | 418.9 | 285.7 | 142.8                                 | 164.4 | 130.4 | 206.6 | 121.6 | 1.3                                   | 2.2   | 0.6   | 0.7   | 1.1   | 0.9   | 1.5   | 1.5   | 0.5   | 0.9   |
| Carlton ...    | 2331                  | 24.8                                  | 27.5  | 25.7  | 33.0  | 33.8  | 12.0                                  | 13.7  | 11.9  | 17.5  | 17.5  | 214.2                                 | 290.3 | 250.0 | 190.4 | 222.2 | 103.4                                 | 145.1 | 116.6 | 100.8 | 114.7 | 0.8                                   | 1.3   | 1.0   | 1.9   | 0.5   | 0.4   | 0.0   | 0.8   | 1.3   | 2.2   |
| Wilford ...    | 5229                  | 27.9                                  | 26.2  | 39.8  | 20.7  | 26.3  | 19.1                                  | 16.1  | 15.8  | 15.3  | 12.6  | 300.0                                 | 211.7 | 238.0 | 156.2 | 348.3 | 273.9                                 | 130.4 | 122.6 | 115.3 | 187.7 | 1.1                                   | 1.5   | 0.1   | 0.6   | 0.6   | 0.5   | 0.9   | 1.8   | 1.5   | 2.0   |

## RAINFALL REGISTERS.

| Month.   | Total<br>Depth.<br>Inches. | Greatest Fall in<br>24 hours.<br>Depth. | Date. | Number of<br>Days on<br>which .01<br>or more<br>rain fell. | Month.  | Total<br>Depth.<br>Inches. | Greatest Fall in<br>24 hours.<br>Depth. | Date. | Number of<br>Days on<br>which .10<br>or more<br>rain fell. |
|--|----------------------------|---|-------|--|---|----------------------------|---|-------|--|
| January -  | 1.85                       | .43                                     | 26th  | 18   | January -   | 2.21                       | .46                                     | 26th  | 26   |
| February   | 2.52                       | .33                                     | 9th   | 19   | February  | 2.89                       | .42                                     | 9th   | 22   |
| March -  | .27                        | .08                                     | 15th  | 7  | March -   | .38                        | .10                                     | 3rd   | 7  |
| April -  | .45                        | .29                                     | 16th  | 4  | April -   | .52                        | .32                                     | 16th  | 4  |
| May -  | 2.45                       | 1.54                                    | 17th  | 10   | May -   | 2.77                       | 1.49                                    | 17th  | 10   |
| June -   | .94                        | .41                                     | 26th  | 7  | June -  | 1.08                       | .63                                     | 26th  | 9  |
| July -   | 2.30                       | .63                                     | 11th  | 20   | July -  | 2.32                       | .52                                     | 11th  | 18   |
| August -   | 1.29                       | .29                                     | 31st  | 16   | August -  | 1.28                       | .51                                     | 31st  | 13   |
| September  | 1.99                       | .87                                     | 8th   | 12   | September   | 1.63                       | .44                                     | 8th   | 11   |
| October -  | 1.80                       | .43                                     | 7th   | 12   | October -   | 1.53                       | .49                                     | 7th   | 14   |
| November   | 1.70                       | .47                                     | 18th  | 18   | November  | 1.54                       | .42                                     | 18th  | 20   |
| December   | 2.58                       | .47                                     | 20th  | 21   | December  | 2.50                       | .53                                     | 12th  | 21   |
| TOTAL -  | 20.14                      |   |       | 164  | TOTAL -   | 20.65                      |   |       | 175  |
| Beeston Fields, Nottingham.<br>Gauge above ground, 9in. ; above sea level,<br>206 ft. <i>George Fellows</i>  |                            |   |       |  | Strelley Hall, Nottingham.<br>Gauge above ground, 12 in. ; above sea level<br>396 ft. <i>Thomas L. K. Edge.</i>             |                            |   |       |  |
| January -  | 1.57                       | .44                                     | 26th  | 19   | January -   | 1.56                       | .40                                     | 26th  | 18   |
| February   | 2.88                       | .41                                     | 25th  | 18   | February  | 2.16                       | .38                                     | 21st  | 22   |
| March -  | .36                        | .12                                     | 1st   | 7  | March -   | .15                        | .07                                     | 15th  | 5  |
| April -  | .74                        | .40                                     | 16th  | 4  | April -   | .40                        | .28                                     | 16th  | 4  |
| May -  | 2.98                       | 1.70                                    | 17th  | 9  | May -   | 1.89                       | .87                                     | 17th  | 10   |
| June -   | 1.04                       | .60                                     | 26th  | 7  | June -  | .85                        | .38                                     | 26th  | 8  |
| July -   | 3.81                       | .95                                     | 2nd   | 21   | July -  | 2.07                       | .40                                     | 12th  | 17   |
| August -   | 1.68                       | .44                                     | 31st  | 14   | August -  | 1.54                       | .48                                     | 9th   | 11   |
| September  | 1.34                       | .34                                     | 8th   | 13   | September   | 1.37                       | .40                                     | 8th   | 12   |
| October -  | 1.45                       | .54                                     | 7th   | 13   | October -   | 1.54                       | .52                                     | 7th   | 13   |
| November   | 1.52                       | .51                                     | 18th  | 15   | November  | 1.38                       | .33                                     | 18th  | 11   |
| December   | 2.49                       | .70                                     | 12th  | 16   | December  | 2.03                       | .33                                     | 20th  | 15   |
| TOTAL -  | 21.86                      |   |       | 156  | TOTAL -   | 16.94                      |   |       | 146  |
| The Colliery, Eastwood, Notts.<br>Gauge above ground, 12in. ; above sea level<br>245 ft. <i>Ed. Lindley.</i> |                            |   |       |  | Corporation Farm, Stoke Bardolph, Notts.<br>Gauge above ground, 6 ft. 7 in. ; above sea<br>level, 80 ft. <i>James Aris.</i> |                            |   |       |  |

## METEOROLOGICAL

*(As supplied Weekly and Monthly to the*

Taken at Nottingham, at a Station 214·32 feet above mean or half tide

Latitude 52 deg. 57 min. North ;

| Month.    | Pressure of Atmosphere in Month. |        | Temperature of Air in Month. |         |        |                 |                |              |      | Mean Temperature. |                | Vapour.                 |                      |    | Mean degree of Humidity Saturation=100. |
|-----------|----------------------------------|--------|------------------------------|---------|--------|-----------------|----------------|--------------|------|-------------------|----------------|-------------------------|----------------------|----|---|
|           | Mean.                            | Range. | Highest.                     | Lowest. | Range. | Mean.           |                |              | Air. | Dew Point.        | Elastic Force. | In a cubic foot of Air. |                      |    |   |
|           |                                  |        |                              |         |        | Of all Highest. | Of all Lowest. | Daily Range. |      |                   |                | Mean.                   | Short of Saturation. |    |   |
| 1893.     | Inches.                          | Inches | Degs.                        | Degs.   | Degs.  | Degs.           | Degs.          | Degs.        | Deg  | Degs.             | Ins.           | Gns.                    | Gns.                 |    |   |
| Jan. ...  | 30·018                           | 1·040  | 52·6                         | 9·8     | 42·8   | 40·0            | 30·8           | 9·2          | 35·7 | 33·0              | 0·189          | 2·2                     | 0·3                  | 90 |   |
| Feb. ...  | 29·607                           | 1·599  | 57·9                         | 27·0    | 30·9   | 45·1            | 34·3           | 10·8         | 40·0 | 37·0              | 0·220          | 2·5                     | 0·4                  | 90 |   |
| March ... | 30·073                           | 0·989  | 65·5                         | 22·8    | 42·7   | 54·3            | 34·8           | 19·5         | 44·3 | 37·8              | 0·227          | 2·6                     | 0·7                  | 77 |   |
| April ... | 30·166                           | 0·645  | 77·3                         | 27·4    | 49·9   | 60·0            | 37·4           | 22·6         | 48·7 | 39·1              | 0·239          | 2·8                     | 1·2                  | 69 |   |
| May ...   | 30·039                           | 0·875  | 73·8                         | 37·5    | 36·3   | 62·3            | 43·5           | 18·8         | 53·6 | 43·1              | 0·278          | 3·1                     | 1·5                  | 68 |   |
| June ...  | 29·976                           | 1·096  | 82·2                         | 37·7    | 44·5   | 66·3            | 48·0           | 18·3         | 57·5 | 47·4              | 0·327          | 3·7                     | 1·6                  | 69 |   |
| July ...  | 29·856                           | 0·758  | 84·6                         | 46·0    | 38·6   | 68·5            | 52·3           | 16·2         | 61·1 | 50·7              | 0·369          | 4·1                     | 1·9                  | 69 |   |
| Aug. ...  | 29·966                           | 0·837  | 90·4                         | 41·7    | 48·7   | 71·6            | 53·2           | 18·4         | 63·1 | 51·8              | 0·386          | 4·3                     | 2·1                  | 67 |   |
| Sept. ... | 29·817                           | 1·164  | 74·2                         | 36·2    | 38·0   | 63·3            | 45·6           | 17·7         | 55·1 | 46·3              | 0·315          | 3·6                     | 1·3                  | 72 |   |
| Oct. ...  | 29·838                           | 1·338  | 65·9                         | 29·7    | 36·2   | 56·5            | 42·1           | 14·4         | 49·6 | 42·8              | 0·276          | 3·1                     | 0·9                  | 78 |   |
| Nov. ...  | 29·967                           | 1·494  | 59·8                         | 22·2    | 37·6   | 46·7            | 35·0           | 11·7         | 41·2 | 36·9              | 0·219          | 2·5                     | 0·5                  | 85 |   |
| Dec. ...  | 29·907                           | 1·915  | 54·8                         | 20·0    | 34·8   | 45·3            | 33·9           | 11·4         | 39·7 | 36·5              | 0·216          | 2·5                     | 0·3                  | 89 |   |



## OBSERVATIONS, 1893.

*Registrar-General, Somerset House, London.)\**

level at Hull, and 215·00 feet above mean or half tide level at Liverpool.

Longitude 1 deg. 9 min. West.

| Mean Weight of a cubic foot of Air. | Mean Reading of Thermometer. |                   | Wind.  |                        |     |     |    |       |                             | Mean amount of Ozone.<br>0 to 10 | Mean amount of Cloud.<br>0 to 10 | Rain.                          |                  |   |              |
|-------------------------------------|------------------------------|-------------------|--|------------------------|-----|-----|----|-------|-----------------------------|----------------------------------|----------------------------------|--------------------------------|------------------|---|--------------|
|                                     | Maximum in Rays of Sun.      | Minimum on Grass. | Mean daily Pressure in lbs. per square foot. | Relative proportion of |     |     |    |       | Horizontal movement of Air. |                                  |                                  | No. of days .010 or more fell. | Amount collected | Amount collected, 76 feet above ground. | Evaporation. |
|                                     |                              |                   |  | N                      | E   | S   | W  | Calm. |                             |                                  |                                  |                                |                  |   |              |
| Gns.                                | Deg.                         | Deg.              |  |                        |     |     |    |       | Miles.                      |                                  |                                  |                                | Inches           | Inches                                  | Inches       |
| 557.0                               | 56.6                         | 27.1              | .3517  | 8                      | 4   | 4   | 15 | ...   | 7325                        | .32                              | 7.9                              | 17                             | 1.398            | 1.346                                   | 0.080        |
| 544.6                               | 72.2                         | 32.0              | .6789  | 4                      | 3   | 8   | 13 | ...   | 8895                        | .64                              | 7.9                              | 20                             | 2.412            | 2.159                                   | 1.049        |
| 548.3                               | 94.3                         | 32.0              | .5045  | 3                      | 3   | 6   | 19 | ...   | 7945                        | .26                              | 7.4                              | 8                              | 0.439            | 0.341                                   | 2.374        |
| 545.4                               | 103.3                        | 37.4              | .4068  | 9                      | 13  | 2   | 6  | ...   | 6105                        | .06                              | 3.7                              | 3                              | 0.353            | 0.329                                   | 3.387        |
| 537.5                               | 112.0                        | 42.9              | .4618  | 7                      | 8   | 4   | 12 | ...   | 6665                        | .35                              | 4.8                              | 10                             | 2.845            | 2.601                                   | 3.636        |
| 532.0                               | 111.5                        | 46.5              | .2643  | 5                      | 11  | 5   | 9  | ...   | 5730                        | .33                              | 5.9                              | 9                              | 1.446            | 1.467                                   | 4.806        |
| 526.1                               | 116.0                        | 49.0              | .3460  | 6                      | 6   | 5   | 14 | ...   | 5640                        | .06                              | 5.9                              | 15                             | 2.138            | 2.054                                   | 4.652        |
| 526.0                               | 117.6                        | 48.1              | .3860  | 3                      | 2   | 5   | 21 | ...   | 6930                        | .55                              | 4.5                              | 14                             | 1.851            | 1.734                                   | 4.321        |
| 531.7                               | 107.2                        | 43.2              | .2967  | 2                      | 5   | 2   | 21 | ...   | 6515                        | .49                              | 5.1                              | 12                             | 2.160            | 2.026                                   | 3.436        |
| 538.1                               | 93.4                         | 38.0              | .4882  | 4                      | 1   | ... | 26 | ...   | 7685                        | .71                              | 4.9                              | 13                             | 1.495            | 1.283                                   | 1.969        |
| 550.0                               | 70.8                         | 32.6              | .5511  | 13                     | 4   | 1   | 12 | ...   | 9830                        | 1.03                             | 7.3                              | 13                             | 1.268            | 1.030                                   | 0.983        |
| 550.5                               | 57.6                         | 29.4              | .5734  | 3                      | ... | 9   | 19 | ...   | 9335                        | 1.68                             | 6.9                              | 17                             | 2.360            | 1.967                                   | 0.758        |

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